

WHAT IS CLAIMED IS:

1. An absorbent article comprising:

a substantially impermeable backsheet;

a permeable topsheet; and

an absorbent core disposed between the substantially impermeable backsheet and the permeable topsheet, said absorbent core comprising a superabsorbent polymer having a Gel Integrity Index (GII) of less than about 500 kg mm.

2. The absorbent article of claim 1, wherein the superabsorbent polymer is about 10% to about 80% by weight of the absorbent core.

3. The absorbent article of claim 1, wherein the superabsorbent polymer is about 20% to about 60% by weight of the absorbent core.

4. The absorbent article of claim 1, wherein the superabsorbent polymer is about 30% to about 50% by weight of the absorbent core.

5. The absorbent article of claim 1, wherein the absorbent core additionally comprises about 50% to about 70% by weight of wettable fibers.

6. The absorbent article of claim 1, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

7. The absorbent article of claim 1, wherein the superabsorbent polymer is crosslinked.

8. The absorbent article of claim 1, wherein the superabsorbent polymer is a polyacrylate.

9. The absorbent article of claim 1, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

10. The absorbent article of claim 1, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

5 11. The absorbent article of claim 1, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

12. The absorbent article of claim 1, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

10 13. The absorbent article of claim 1, wherein the absorbent core additionally comprises a surfactant, a filler, an additive or a combination thereof.

14. The absorbent article of claim 13, wherein the additive is selected from the group consisting of a flame retardant, a reinforcing agent, an auxiliary blowing agent, a medicament, a fragrance, a colorant, a cleaner, an abrasive and a combination thereof.

15 15. The absorbent article of claim 1, wherein the absorbent article is a diaper, incontinent brief, training pant, diaper holder, diaper liner, sanitary napkin, hygienic garment or combination thereof.

16. An absorbent article comprising:

a substantially impermeable backsheet;

a permeable topsheet;

20 an absorbent core comprising about 30% to about 50% by weight of a superabsorbent polymer and about 50% to about 70% by weight of wettable fibers, said absorbent core being

disposed between the substantially impermeable backsheet and the permeable topsheet, said superabsorbent polymer having a Gel Integrity Index (GII) of less than about 500 kg mm.

17. The absorbent article of claim 16, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

5 18. The absorbent article of claim 16, wherein the superabsorbent polymer is crosslinked.

19. The absorbent article of claim 16, wherein the superabsorbent polymer is a polyacrylate.

10 20. The absorbent article of claim 16, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

21. The absorbent article of claim 16, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

22. The absorbent article of claim 16, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

15 23. The absorbent article of claim 16, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

24. The absorbent article of claim 16, wherein the absorbent core additionally comprises a surfactants, a filler, an additive or a combination thereof.

20 25. The absorbent article of claim 24, wherein the additive is selected from the group consisting of a flame retardant, a reinforcing agent, an auxiliary blowing agent, a medicament, a fragrance, a colorant, a cleaner, an abrasive and a combination thereof.

26. The absorbent article of claim 16, wherein the absorbent article is a diaper, incontinent brief, training pant, diaper holder, diaper liner, sanitary napkin, hygienic garment or combination thereof.

27. An absorbent article comprising:

a substantially impermeable backsheet;

a permeable topsheet;

an absorbent core comprising about 30% to about 50% by weight of a crosslinked superabsorbent polymer, said absorbent core being disposed between the substantially impermeable backsheet and the permeable topsheet, said crosslinked superabsorbent polymer having a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm and an AUL value of less than about 25 g/g.

28. An absorbent garment comprising:

a substantially impermeable backsheet and a permeable topsheet defining a front waste portion and a rear waste portion, said front waste portion and said rear waste portion cooperating to form a waste opening;

a crotch region formed between the front waste portion and the rear waste portion;

a pair of leg openings on opposed sides of the crotch region;

an absorbent core disposed between the substantially impermeable backsheet and the permeable topsheet at the crotch region;

wherein the absorbent core comprises a superabsorbent polymer having a Gel Integrity Index (GII) of less than about 500 kg mm.

29. The absorbent garment of claim 28, wherein the superabsorbent polymer is about 10% to about 80% by weight of the absorbent core.

30. The absorbent garment of claim 28, wherein the superabsorbent polymer is about 20% to about 60% by weight of the absorbent core.

31. The absorbent garment of claim 28, wherein the superabsorbent polymer is about 30% to about 50% by weight of the absorbent core.

5 32. The absorbent garment of claim 28, wherein the absorbent core additionally comprises about 50% to about 70% by weight of wettable fibers.

33. The absorbent garment of claim 28, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

10 34. The absorbent garment of claim 28, wherein the superabsorbent polymer is crosslinked.

35. The absorbent garment of claim 28, wherein the superabsorbent polymer is a polyacrylate.

36. The absorbent garment of claim 28, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

15 37. The absorbent garment of claim 28, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

38. The absorbent garment of claim 28, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

20 39. The absorbent garment of claim 28, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

40. The absorbent garment of claim 28, wherein the absorbent core additionally comprises a surfactant, a filler, an additive or a combination thereof.

41. The absorbent garment of claim 40, wherein the additive is selected from the group consisting of a flame retardant, a reinforcing agent, an auxiliary blowing agent, a medicament, a fragrance, a colorant, a cleaner, an abrasive and a combination thereof.

42. A composition comprising:

about 10% to about 80% by weight of a superabsorbent polymer, said superabsorbent polymer having a Gel Integrity Index (GII) of less than about 500 kg mm; and

about 20% to about 90% by weight of wettable fibers.

43. The composition of claim 42, wherein the superabsorbent polymer is about 20% to about 60% by weight of the composition.

44. The composition of claim 42, wherein the superabsorbent polymer is about 30% to about 50% by weight of the composition.

45. The composition of claim 42, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

46. The composition of claim 42, wherein the superabsorbent polymer is crosslinked.

47. The composition of claim 42, wherein the superabsorbent polymer is a polyacrylate.

48. The composition of claim 42, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

49. The composition of claim 42, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

50. The composition of claim 42, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

51. The composition of claim 42, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

52. A composition prepared by a process comprising:

combining about 10% to about 80% by weight of a superabsorbent polymer having a Gel Integrity Index (GII) of less than about 500 kg mm with about 20% to about 90% by weight of wettable fibers.

53. The composition of claim 52, wherein the superabsorbent polymer is about 20% to about 60% by weight of the composition.

54. The composition of claim 52, wherein the superabsorbent polymer is about 30% to about 50% by weight of the composition.

55. The composition of claim 52, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

56. The composition of claim 52, wherein the superabsorbent polymer is crosslinked.

57. The composition of claim 52, wherein the superabsorbent polymer is a polyacrylate.

58. The composition of claim 52, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

59. The composition of claim 52, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

5 60. The composition of claim 52, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

61. The composition of claim 52, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

62. A method of preparing a composition for use in absorbent articles comprising:
 10 combining wettable fibers with a superabsorbent polymer having a Gel Integrity Index of less than about 500 kg mm;
 wherein the wettable fibers comprise about 20% to about 90% by weight of the composition and the superabsorbent polymer comprises about 10% to about 80% by weight of the composition.

15 63. The method of claim 62, wherein the superabsorbent polymer is about 20% to about 60% by weight of the composition.

64. The method of claim 62, wherein the superabsorbent polymer is about 30% to about 50% by weight of the composition.

20 65. The method of claim 62, wherein the wettable fibers comprises about 50% to about 70% by weight of the composition.

66. The method of claim 62, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

67. The method of claim 62, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

5 68. The method of claim 62, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

69. The method of claim 62, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

10 70. The method of claim 62, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.

71. A method of preparing an absorbent article comprising:
combining a superabsorbent polymer having a Gel Integrity Index of less than about 500 kg mm with wettable fibers to form an absorbent core and disposing the absorbent core between a substantially impermeable backsheet and a permeable topsheet.

15 72. The method of claim 71, wherein the superabsorbent polymer is about 10% to about 80% by weight of the absorbent core.

73. The method of claim 71, wherein the superabsorbent polymer is about 20% to about 60% by weight of the composition.

20 74. The method of claim 71, wherein the superabsorbent polymer is about 30% to about 50% by weight of the composition.

75. The method of claim 71, wherein the wettable fibers comprise about 20% to about 90% of the composition.

76. The method of claim 71, wherein the wettable fibers comprise about 50% to about 70% by weight of the composition.

5 77. The method of claim 71, wherein the superabsorbent polymer has an AUL value of less than about 25 g/g.

78. The method of claim 71, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 10 kg mm.

10 79. The method of claim 71, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 1 kg mm.

80. The method of claim 71, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of less than about 0.05 kg mm.

81. The method of claim 71, wherein the superabsorbent polymer has a Gel Integrity Index (GII) of about 0.10 kg mm to about 0.30 kg mm.